REMARKS

Claims 1-3, 5-7, 10-17, 19-23 and 25-27 are pending in this application. By this Amendment, claims 1, 7, 11, 17, 19, 21, 23 and 25-27 are amended and claims 8-9, 18 and 28-30 are canceled without prejudice or disclaimer. Various amendments are made for clarity and are unrelated to issues of patentability.

The Office Action rejects claims 21-30 under 35 U.S.C. §101 because of non-statutory subject matter. It is respectfully submitted that the above amendments obviate the grounds for rejection. That is, the above amendments incorporate the suggestion from the Office Action. Claims 20-30 satisfy 35 U.S.C. §101. Withdrawal of the rejection is respectfully requested.

The Office Action rejects claims 1-3, 5-6, 10-16, 20-23, 25-26 and 30 under 35 U.S.C. §102(e) by U.S. Patent 7,158,173 to Lee et al. (hereafter Lee). The Office Action also rejects claims 7, 17 and 27 under 35 U.S.C. §103(a) over Lee in view of U.S. Patent 6,597,339 to Ogawa. Still further, the Office Action rejects claims 8-9, 18-19 and 28-29 under 35 U.S.C. §103(a) over Lee in view of U.S. Patent 4,352,105 to Harney. The rejections are respectfully traversed with respect to the pending claims.

Independent claim 1 recites a controller that controls the terminal to sense an illumination intensity of a photographed object around the terminal, the photographed object comprising a digital image having a plurality of pixels, the controller to determine a level of the illumination intensity from a data table based on a most frequently detected brightness value of the pixels in the digital image, wherein the data table includes a first range of brightness peak values and a second range of brightness peak values different than the first range of brightness

peak values, the data table further including a first illumination intensity value corresponding to the first range of brightness peak values and a second illumination intensity value corresponding to the second range of brightness peak values, wherein the controller determines that the most frequently detected brightness value falls within the first range of brightness peak values and the controller reads the first illumination intensity value from the data table based on the most frequently detected brightness value. Independent claim 1 also recites a display unit that controls the screen brightness value of the terminal based on the first illumination intensity value read from the data table by the controller based on the most frequently detected brightness value that falls within the first range of brightness peak values.

The applied references do not teach or suggest at least these features of independent claim 1, which includes features from previous dependent claims 8-9. More specifically, Lee and Harney do not teach or suggest features relating to the data table and the most frequently detected brightness value. That is, in discussing this feature, the Office Action references Lee's FIG. 4, steps 406 and 414 and FIG. 9A (showing a histogram). However, these cited features do not teach or suggest based on a most frequently detected brightness value of the pixels. For example, steps 406 and 414 (FIG. 4) relate to calculating a luminous average of an edge region. A luminous average does not teach or suggest a most frequently detected brightness value.

The Office Action also references the table in Lee's col. 9 as teaching to determine a level of the illumination intensity from a data table based on a most frequently detected brightness value of pixels. However, Table 1 (in col. 9) does not relate to a most frequently detected

brightness value. Rather, Table 1 relates to a comparison of luminous averages in a center region and an edge region.

The Office Action also references Lee's histogram in FIG. 9. However, as is specifically described in detail in Lee's col. 10, lines 20-35, after calculating the histogram, specific brightnesses are controlled by adding or subtracting a previously-set control value to-or-from brightness contrast stretched pixel values based on whether a bright state or a dark state is determined. See, for example, FIGs. 9B and 9C. The graph of FIG. 9A moves either to the left or to the right in order to obtain the graphs of FIG. 9B or 9C. This clearly does not teach or suggest to determine a level of illumination intensity from a data table based on a most frequently detected brightness value of the pixels in the digital image. In other words, the Table 1 (in col. 9) does not correspond to the embodiment discussed with respect to FIG. 9. FIG. 9 does not relate to a data table.

When discussing features of the data table recited in dependent claims 8 and 9, the Office Action references Harney's Table 1 (in col. 1). However, Table 1 shows specific colors that may be displayed based on a picture element intensity I and range. There is no suggestion of how Harney's color mapping may be combined with Lee's FIG. 9A disclosure relating to adding or subtracting a previously-set control value. Lee expressly describes adding or subtracting a control value to-or-from brightness contrast pixel values in order to move the graph. There is no suggestion of how Lee may operate in accordance with Harney's Table 1 (that shows specific colors that may be displayed).

The Office Action (on page 5) states that it would be obvious to use range/intensity mapping in Harney's display controller because range mapping or look-up table simplifies control. However, the alleged modification would destroy the express features of Lee relating to adding/subtracting a previously-set control value to obtain the graphs of FIG. 9. The alleged modification is improper and does not teach or suggest all the features of independent claim 1.

Lee and Harney do not teach or suggest controller to determine a level of the illumination intensity from a data table based on a most frequently detected brightness value of the pixels in the digital image, wherein the data table includes a first range of brightness peak values and a second range of brightness peak values different than the first range of brightness peak values, the data table further including a first illumination intensity value corresponding to the first range of brightness peak values and a second illumination intensity value corresponding to the second range of brightness peak values, wherein the controller determines that the most frequently detected brightness value falls within the first range of brightness peak values and the controller reads the first illumination intensity value from the data table based on the most frequently detected brightness value.

Accordingly, Lee and Harney do not teach or suggest all the features of independent claim 1. Ogawa does not teach or suggest the features of independent claim 1 missing from Lee and Harney. Thus, independent claim 1 defines patentable subject matter.

Independent claim 11 recites controlling the terminal to sense an illumination intensity of a digital image having a plurality of pixels and to determine a level of the illumination intensity, from a data table storing information related to different illumination intensity levels, based on a

most frequently detected brightness value of the pixels, wherein the data table includes a first range of brightness peak values and a second range of brightness peak values different than the first range of brightness peak values, the data table further including a first illumination intensity value corresponding to the first range of brightness peak values and a second illumination intensity value corresponding to the second range of brightness peak values, wherein the controlling includes reading the first illumination intensity value from the data table based on the most frequently detected brightness value corresponding to the first range of brightness peak values. Independent claim 11 also recites controlling the screen brightness value of the terminal based on the first illumination intensity value read from the data table.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 11. For example, Lee and Harney do not teach or suggest the features relating to the data table and the controlling includes reading the first intensity value from the data table based on the most frequently detected brightness value corresponding to the first range of brightness peak values. Thus, independent claim 11 defines patentable subject matter.

Independent claim 21 recites a first instruction for causing a computer executing said instruction to control the terminal to sense an illumination intensity of a photographed object around the terminal, the photographed object comprising a digital image having a plurality of pixels, the first instruction to determine a level of the illumination intensity from a data table based on a most frequently detected brightness value of the pixels in the digital image, wherein the data table includes a first range of brightness peak values and a second range of brightness

peak values different than the first range of brightness peak values, the data table further including a first illumination intensity value corresponding to the first range of brightness peak values and a second illumination intensity value corresponding to the second range of brightness peak values, wherein the first instruction causes the computer executing the instruction to determine that the most frequently detected brightness value falls within the first range of brightness peak values and the first instruction causes the computer to read the first illumination intensity value from the data table based on the most frequently detected brightness value of the pixels. Independent claim 21 also recites a second instruction for causing a computer executing said instruction to control the screen brightness value of the terminal based on the first illumination intensity value read from the data table by the first instruction based on the most frequently detected brightness value that corresponds to the first range of brightness peak values.

For at least similar reasons as set forth above, the applied references do not teach or suggest at least these features of independent claim 21. Thus, independent claim 21 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 1, 11 and 21 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-3, 5-7, 10-17, 19-23 and 25-27 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
KED & ASSOCIATES, LLP

David C. Oren
Registration No. 38,694

P.O. Box 221200
Chantilly, Virginia 20153-1200
(703) 766-3777 DCO/kah
Date: August 13, 2008
Please direct all correspondence to Customer Number 34610